UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,870	07/24/2001	Ziva Sommer	SOMMER 2	4041

1444   7590   07/14/2005

	EXAMINER
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303	MARIAM, DANIEL G

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/910,870	SOMMER ET AL.
	Examiner	**Art Unit**	
	DANIEL G. MARIAM	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 March 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
  closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-36</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
    application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____ .
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   5)☐ Notice of Informal Patent Application (PTO-152)
   Paper No(s)/Mail Date _____ .   6)☐ Other: _____ .

Response to Arguments

1. Applicants' arguments filed March 23, 2005 have been fully considered but they are not deemed to be persuasive for at least the following reasons.

2. Applicants argue starting on page 2 of the remarks, that Shyu describes methods for computer-aided data entry. One of these methods, as noted by the Examiner, involves checking whether the character in a field or fields satisfy a predetermined relationship (col. 8, lines 23-28, emphasis added). Shyu gives no indication as to the origin of this relationship, but it is clear that the relation is determined in advance of processing the data in question. Shyu neither teaches nor suggests any method by which the relationship might be found from the actual data being processed, as taught by the present patent application.

The Examiner disagrees. For example, at col. 4, lines 17-27, Shyu states: "If a field does not pass the integrity check, it is displayed on the screen for editing and an editor may input a corrected character string. The field may again be checked for integrity. If it fails more than once, the field is displayed with field information highlighted, or with related fields (i.e., a zip code and a town, or all numbers in a mathematical equation)"; at col. 8, lines 36-39, col. 8, lines 56-65, and col. 10, lines 50-54 Shyu further states: ". . . only a single field is displayed at a time or only a single set of related fields, as described below. After a field is corrected by an editor, it is again checked for integrity"; "If it is not the first time the field has been corrected, it is determined whether this field is independent or related to other fields. That is, could the error in the field be due to an error in another field? If yes, it has "related" fields; if no, it is an independent field. For example, if the field is the numerical difference between two numbers (i.e., A-B=C), an error in the difference may be due to an error in the two numbers to be

subtracted or in the difference. If the field is related to other fields, the field is displayed along

with the related field or fields"; and "arranging rejected characters in size and/or image density

order provides the editor with a neater, easier to read screen display. This increases efficiency

and accuracy. The field editing determines if a field error may be related to entries in other

fields. If so, these fields are displayed". Thus, Shyu does find a relation between the entries in

the fields. Additionally, there is nothing in the claims that precludes finding a relation between

entries of an already determined relationship between entries of the fields.

Finally, in response to applicants' argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies (i.e.,

actual data) are not recited in the rejected claim(s). Although the claims are interpreted in light

of the specification, limitations from the specification are not read into the claims. See *In re Van*

Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-2, 6, 10-14, 18, and 22-24 are rejected under 35 U.S.C. 102(b) as being

anticipated by Shyu, et al. (5,923,792).

With regard to claim 1, Shyu, et al. discloses a method for processing data (See for

example, Fig. 2) comprising: receiving as inputs a plurality of records, each record comprising

respective entries in a first field and in a second field (See for example, col. 6, lines 18-30; and

Figs. 4-10); processing at least some of the records so as to find a relation, i.e., mathematical entry, for example, between the entries in the first and second fields in the at least some of the records, selecting for verification, i.e., integrity check of the content of the field, one of the records, comprising first and second entries in the first and second fields, respectively, and comparing the first and second entries to the relation in order to verify the first and second entries (See col. 7, line 66 through col. 9, line 19).

With regard to claim 2, a method according to claim 1, wherein processing the at least some of the records comprises processing alphanumeric characters, and wherein the relation comprises a semantic relationship between words formed by the characters (See for example, col. 8, lines 12-21).

With regard to claim 6, a method according to claim 1, wherein processing the at least some of the records comprises finding a mathematical relationship, i.e., C=A-B, between the entries in the first and second fields (See col. 8, lines 22-35).

With regard to claim 10, a method according to claim 1, wherein comparing the first and second entries comprises correcting one or more of the first and second entries so as to accord with the relation (See for example, col. 8, lines 47-54).

With regard to claim 11, a method according to claim 1, wherein processing the at least some of the records comprises finding alternative first and second relations, i.e., mathematical entry or town/zipcode, between the entries in the first and second fields, and wherein comparing the first and second entries comprises verifying the entries if they accord with either of the first and second relations (which broadly reads on col. col. 8, lines 12-35; and col. 9, lines 40-58).

With regard to claim 12, a method according to claim 1, wherein receiving the plurality

of records comprises receiving entries that have been coded by optical character recognition

(OCR), and wherein comparing the first and second entries comprises verifying that the OCR has

correctly coded the entries (See for example, col. 3, lines 46-50; col. 10, line 40 through col. 11,

line 5; and Fig. 1).

Claims 13, 14, 18, 22, 23, and 24 are rejected the same as claims 1, 2, 6, 10, 11, and 12

respectively except claims 13, 14, 18, 22, 23, and 24 are apparatus claims. Thus, arguments

analogous to those presented above for claims 1, 2, 6, 10, 11, and 12 are respectively applicable

to claims 13, 14, 18, 22, 23, and 24.

Claims 25, 26, 30, 34, 35, and 36 are rejected the same as claims 1, 2, 6, 10, 11, and 12

respectively. Thus, arguments analogous to those presented above for claims 1, 2, 6, 10, 11, and

12 are respectively applicable to claims 25, 26, 30, 34, 35, and 36. Shyu, et al further discloses a

computer software product for processing data, the product comprising a computer-readable

medium in which program instructions are stored (See Figure 1).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 7-9, 19-21, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Shyu, et al. (5,923,792) in view of Elischer, et al. (5,193,121).

With regard to claim 7, Shyu, et al. (hereinafter "Shyu") discloses all of the claimed subject matter, as already discussed above in paragraph 4, and incorporated herein by reference. Shyu does net expressly call for assigning a confidence level to the relation, and wherein comparing the entries comprises verifying the entries responsive to the confidence level. However, Elischer, et al. (col. 3, line 53 through col. 4, line 13) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Elischer, et al. into the system of Shyu, and to do so would at least minimize the time taken to compare the various entries/contents of the fields by associating a constraint, i.e., confidence level, so that data can be verified according to the degree of the confidence level, and thereby enhancing the verification/integrity process.

With regard to claim 8, a method according to claim 7, wherein assigning the confidence level to the relation comprises assigning the confidence level responsive to a quantity of the at least some of the records that satisfy the relation (See for example, Fig. 2 of Elischer, et al).

With regard to claim 9, a method according to claim 1, wherein comparing the first and second entries to the relation comprises assigning a confidence level to the verification of the selected record responsive to a fit of the first and second entries to the relation (See col. 5, 27-53 of Elischer, et al).

Claims 19, 20, and 21 are rejected the same as claims 7, 8, and 9 respectively except claims 19, 20, and 21 are apparatus claims. Thus, arguments analogous to those presented above for claims 7, 8, and 9 are respectively applicable to claims 19, 20, and 21.

Claims 31, 32, and 33 are rejected the same as claims 7, 8, and 9 respectively. Thus,

arguments analogous to those presented above for claims 7, 8, and 9 are respectively applicable

to claims 7, 8, and 9.

7.   Claims 3-5, 15-17, and are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shyu, et al. (5,923,792) in view of Ohta, et al. (5,050,221).

With regard to claim 3, Shyu, et al. (hereinafter "Shyu") discloses all of the claimed

subject matter as already discussed above in paragraph 4, and the arguments are not repeated

herein, but are incorporated by reference. Shyu does not expressly call for plotting points

corresponding to the entries in a multidimensional space, and finding a geometrical relationship

between the points in the space. Finding a geometrical relationship between points by plotting

points corresponding to the entries in a multidimensional, i.e., two dimensional, space is well

known in the art of image or document image processing, as evidenced by Ohta, et al. (See for

example, Figs. 4 and 8). Therefore, it would have been obvious to one having ordinary skill in

the art to incorporate the teaching as taught by Ohta, et al. into the system of Shyu, if for no other

reason than to obtain the geometrical relationship of the data entries by plotting the entries in a 2-

dimensional space as shown in Figure 4, and to do so would at least enhance the

verification/integrity of the content/entry of the fields.

With regard to claim 4, a method according to claim 3, wherein finding the geometrical

relationship comprises fitting one or more lines to at least a portion of the entries (See for

example, Fig. 4 of Ohta, et al).

With regard to claim 5, a method according to claim 4, wherein comparing the first and second entries comprises plotting an entry point in the multidimensional space corresponding to the first and second entries, and verifying the entries responsive to a proximity of the entry point to one of the lines (See for example, Figs. 4 and 8 of Ohta, et al).

Claims 15, 16, and 17 are rejected the same as claims 3, 4, and 5 respectively, except claims 15, 16, and 17 are apparatus claims. Thus, arguments analogous to those presented above for claims 3, 4, and 5 are respectively applicable to claims 15, 16, and 17.

Claims 27, 28, and 29 are rejected the same as claims 3, 4, and 5 respectively. Thus, arguments analogous to those presented above for claims 3, 4, and 5 are respectively applicable to claims 27, 28, and 29.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. US Patent No. 5778240.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-

7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, BHAVESH M. MEHTA can be reached on 571-272-7453. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DANIEL MIRIAM
PRIMARY EXAMINER

July 5, 2005